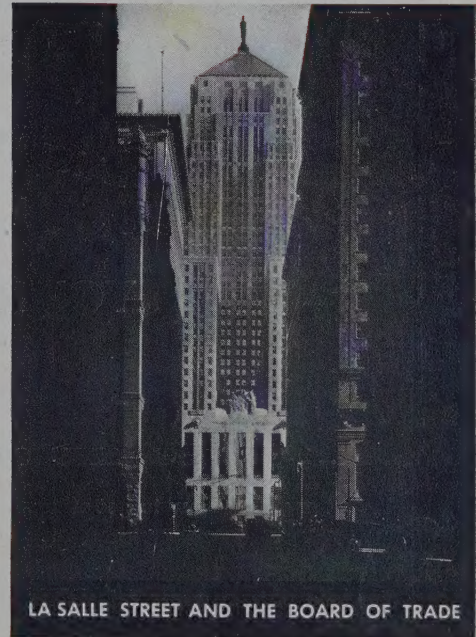


CHICAGO *Invites You*

June 15-16-17



LA SALLE STREET AND THE BOARD OF TRADE

Upper left shows the Medinah Club headquarters for the Superintendents' Society convention. Taken northeasterly from atop the London Guarantee Building, the famous Wrigley Building looms up across the river on one side and the architecturally refreshing Tribune Tower flanks it on the other.

Lower left shows sky-view of same spot from lake side, looking downstream [the river flows backwards] from river mouth towards buildings pictured in left center of view published last month on Pg. 17.

GRAIN

APRIL, 1944

More Local WPB Help

Application: for priority assistance for up to \$25,000, and applications for construction facilities involving \$100,000 or less, may soon be processed by your local office. Form WPB-541, formerly PD-1A, is now in use.

Another Larabee Loss

A second property loss to be suffered by the Larabee Flour Mills within 60 days occurred when its Elwood Terminal, across the river from St. Joseph, burned with 337,000 bu. wheat on April 1.

Starting from an undetermined origin, airplanes cruising over that

section swooped down to attract the attention of the watchman at 2 a. m.

Preformed Wire Rope Eliminates "Loops"

The March issue of "GRAIN" brought up the subject of how best to prevent accidents through getting caught in "loops" in car shovel rope. One employe suffered a badly fractured leg, with probably some permanent disability, and another lost his foot at the ankle, according to the report.

We have found that by using preformed wire rope the tendency to "loop" is almost eliminated, and this kind will last as long as ordinary

rope.—Vincent Shea, Van Dusen-Harrington Co., Minneapolis.

Select Fumigants Wisely

We have had several reports from mills lately informing us that they are experiencing great difficulty in getting the wheat to take water in the tempering process. The tempering of wheat is essential to proper milling, and if wheat will not take water, then close scrutiny will show conclusively that same has been treated—most probably for infestation—with a chemical containing an oil base.

Examination by competent authorities of samples of the wheat complained of reveals a distinct coating of oil, which completely seals the entire wheat berry and makes it impervious to absorption. "Any elevators following such practices should discontinue same immediately and adopt other methods, of which there are many," they say.

It's the Little Things That Count

Today it's more important than ever that we be ready with a pleasant word, a cheery smile, a spirit of helpfulness. There are times when we all are tried beyond our endurance, but let's be courteous even when the temptation is strong to be gruff and brusque.

Hitler, Hirohito & Company would dearly love to see our entire nation involved in a case of "war jitters." The lowering of American civilian morale is a primary aim of the Axis powers. Let's not play right into their hands by using the war as an excuse for discourtesy and rudeness. Instead, let's show the Axis that this war has united us . . . has made decency and friendliness more important than ever . . . and has proved to us that the ready smile and helping hand pay more dividends than the dark frown and the curt retort.

The world's but a bubble of joy mixed with trouble . . . and it's up to you to decide how much of the former will keep your heart warmer . . . or the latter your happiness hide. Just seize every minute that has a smile in it . . . and catch all of the notes in the song. What's the use of repining? . . . the sun is still shining . . . and a hundred things right to one wrong.

ROME ENDURED AS LONG AS THERE WERE ROMANS. AMERICA WILL ENDURE AS LONG AS WE REMAIN AMERICAN IN SPIRIT AND IN THOUGHT.—Gilbert P. Lane in Arcady Wonderblast.



TAKE IT OR LEAVE IT
BUT
YOU'LL BE SORRY...

...if you miss the SIXTY-FOUR DOLLAR QUESTION in your plant: How to get efficient, economical belt service?

The correct answer is REXALL for your heavy-duty legs and conveyors . . . AND NOW STAND BY FOR THE JACKPOT QUESTION!

Are you fed up with fanciful phrases and doubtful promises? Then RESULTS should interest you; so, let us furnish you with the FACTS concerning exceptional service records established over a 36-year period. There's no obligation and you'll not be annoyed.



IMPERIAL BELTING COMPANY

1750 S. KILBOURN

CHICAGO 23, ILL.

You Don't Have to Be Careless to

Make the Headlines, But It Helps

CARDINAL PRINCIPLES OF DUST EXPLOSION PREVENTION

By O. T. Nelson, Engineer, Wisconsin Industrial Commission

Before Rock River Valley Safety Conference

THE ONLY provision of any Industrial Commission code pertaining to dust hazards at the present time, excepting, of course, special electrical safety requirements, is one which requires a vacuum system to sweep and clean a place of employment where dusts of an explosive nature are produced, which are not so gathered as to prevent settling or gathering on floors, walls, machinery, etc. As is usual with many of our regulations, events of the past few years have demonstrated the need for the better control of the grain dust situation.

To prevent grain dust explosions as much as is possible and to minimize the resulting damage should an explosion or fire occur, four cardinal principles embodying (a) regulations on housekeeping, (b) plant cleaning, (c) removal of the dust at its source or origin, (d) as well as provisions for general ventilation where necessary, must be adhered to. In addition to this, the necessity for magnetic separators to remove tramp metal and other foreign elements in the grain—which might cause sparks or set up other hazards incident to explosions—will need to be considered.

No Positive Cure-all

IN SPITE of these precautions for prevention, it cannot be absolutely guaranteed that explosions will be entirely prevented. It will be necessary to take this into consideration and to also provide for structural and other features to minimize their effect, and to eliminate the possibility of a recurrence of some of the disasters we have had in the past.

Such features should include a properly designed structure, the use of single strength "X"-ed glass in windows, the outward hinging of sash, proper bin and tank covers, individual relief vents for storage units and tunnels, as well as other safety provisions of a similar nature.

Rules and regulations, however, cannot be considered a cure-all, and the cooperation, watchfulness and care of every employee is necessary. Iron or steel striking against concrete or against other iron or steel may cause a spark, which in turn could cause a catastrophe. All metal tools and equipment must be carefully handled to prevent such a possibility. Where grain, dust or other refuse is to be shoveled it is recommended that the cutting edge of the shovel be equipped with a strip of non-ferrous metal or else use made of wooden shovels.

If dust-tight electrical cabinets are provided for electrical switches and fuses, see that they are kept closed, as intended. Where portable lights are necessary, and their use should be kept to a minimum, dust-tight globes protected with approved guards with keyless sockets of moulded composition or of metal jacketed porcelain should always be used. There are, of course, other and equally obvious precautions which should be observed, but the few that have been cited suffice as examples.

Headlines for Mass Disasters, But—

WHILE the consideration of hazards involving dust and fumes is of paramount importance, no one must lose sight of the many others which it seems are always with us in spite of the volumes of written articles and spoken words on the subject. Lack of care or thoughtlessness in failing to observe the primary and evident principles of safety may not occasion big black headlines in the newspapers as is customary in relating of mass disasters, but it can cause individual sorrow, pain and its resultant loss of time and income.

In looking through some of our accident records I was impressed with the number of falls of persons working in grain terminals and malt houses, all of which occurred because of unsafe ladders and elevated platforms. Most of the ladder accidents resulted from their slipping and

others from the use of ladders of makeshift construction. . . . No man should ever use a ladder unless it is provided with appropriate safety feet or otherwise secured against slipping.

The falls occurring from elevated walkways and platforms were due to lack of proper handrails. Every elevated walkway is required to be provided with standard guard rails to protect the person working thereon as well as with toeboards to protect the man below from falling objects which might slip from the elevation. Accidents can occur at any elevation—as was illustrated by one particular case in which the records showed that the injured man fell only three feet. Besides the pain and loss of time, that little fall cost nearly \$1,000.

The same precautions, and more, too, must be observed in elevated scaffolds and walks that are not permanent. From my observation there is more or less construction, remodeling or changing of buildings and equipment in the larger grain plants which involve temporary scaffolding. Because it is temporary, there is too great a temptation to use old and unsatisfactory materials, many times erected in a haphazard manner.

Only the best of material should be used for this purpose with both the "hap" and "hazard" taken out of the construction. The Industrial Commission has a code entitled "General Orders on Safety in Construction" which I would recommend to you as an excellent guide should you be called upon to erect or work upon a temporary scaffold.

Manlift Safety Devices Important

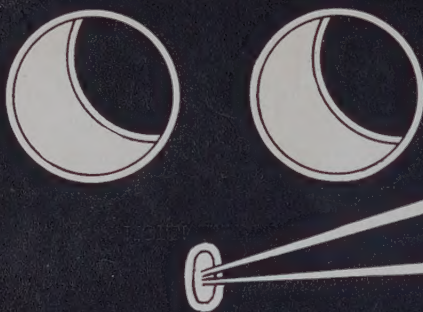
WHILE we are on the subject of working in elevated places, it might be pertinent to bring out in a brief manner something in regard to the equipment used to transport persons from one elevation to another. I refer to the manlifts which are in common use in grain elevators. Each such lift must be constructed and maintained, with definite emphasis on the maintenance, so that the machine will be automatically stopped when any step tread bearing a weight of 50 pounds or more reaches a height of not more than 3½ ft. above the top floor or top landing level. We have had cases where through neglect the automatic device has failed to function and it is for this reason that

KID SALVAGE



"GRAIN":

Published monthly on the 15th by Dean M. Clark, 2800 Board of Trade, Chicago 4, Ill., 10c a copy, \$1 year. Phones: WABash 3111-3112, 8126-7-8-9.



ARE YOU

"Whistling in the Dark?"

Saying something like this to yourself: "Never HAD a dust explosion . . . probably never WILL . . . odds are against it . . . so why should I worry and get all boiled up over nothing?"

Wishful thinking . . . "Whistling in the Dark"! Dust explosions HAVE occurred, WILL occur again. Just when, just where no one can FORETELL. But you can FORESTALL dust explosions, minimize risk and damage with

ROBERTSON SAFETY VENTILATORS

Ninety percent of dust explosions START in the leg, then s-p-r-e-a-d. Robertson Safety Ventilators remove fine dust from elevator leg and, with it, major RISK of explosions. SHOULD an explosion START, it is immediately ushered OUT through vent . . . exhausts itself in the OPEN AIR, thus reducing possibility of disastrous SECONDARY explosions. • Self-operation • Gravity action • Economical, efficient, EVER-PRESENT protection. . . .

Send for catalogue—complete facts

H. H. ROBERTSON CO.

Farmers Bank Bldg.

Pittsburgh, Pa.

too much stress cannot be laid on the maintenance feature.

The sizes of treads must be at least 10 in. wide and 12 in. long and attached to the belt in such a manner as to make sure that they will maintain their proper position at right angles to the belt. The openings in the floors through which the belt and step treads pass must be uniform in size and must provide a safe clearance for anyone standing on any step tread.

Proper protection in the form of guard rails and toeboards is, of course necessary around all such openings except for such space as is required for access and entry to the lift. These various items are naturally supposed to be provided when the installation is made, but are being cited now more with the idea of maintenance in mind so that you as directly interested individuals can do your share in promoting such maintenance, and so by doing reduce the accident possibility to a minimum.

Familiarity Fosters Carelessness

BELTS and conveyors are always a source of hazard, and as in many other instances, familiarity therewith breeds contempt—or at least carelessness. To be sure, the nipping and shearing points of all belts and conveyors are required to be guarded with wire mesh, perforated metal or crossed strips of wood or metal, but such protection is all in vain when an employee will persist in climbing over or crawling under conveying equipment when it is in motion.

Our accident records show that such things do occur with dire results such as the case of one man who attempted to cross over a grain conveyor belt 36 in. wide moving at a speed of 900 ft. per minute. The man fell and was crushed between the belt idler roll and the frame of the machine. As a result, another fatality had to be recorded.

Another man crawled under a conveyor frame and reached through another frame to start an idler which had stuck. He received an arm fracture. Such facts are not pleasant to relate, but I feel they are sometimes necessary in order to bring home the results of what can only be termed pure carelessness. A machine that can be started can also be stopped, and this should always be done when repairs or adjustments are to be made.

Don't Have to Die; Can Live and Suffer

NOT all hazards to which a workman is subjected need be those which might result fatally or which would break an arm or a leg, but that is no reason why they should not be given equally serious consideration. Take the question of eye injuries, for instance. I am sure we will all agree that our sense of sight is one of the most, if not THE most valuable faculty we have.

We can buy teeth without any difficulty, and even though they are not a

100% substitute for the real things, artificial limbs will still enable a person to do pretty well in going about many of his customary duties—but not so with eyes. When they are gone they cannot be replaced. Sure, the appearance can be maintained with a glass eye, but as a recent poster truly indicates, "there is not a sight in a basketful."

When we consider that 2,000 eyes are lost annually it should give us pause, especially when the use of such a simple thing as a pair of appropriate goggles would take care of the situation. Therefore, when any work is being done which could cause damage to the eyes—and in this I include chipping of any sort, grinding, shoveling of grain, dust or refuse—don't neglect to wear goggles suitable for the purpose.

Urges New Type Respirators

IN MY opinion, all dusts are more or less harmful, and while some may disagree, I think that grain dust can in many cases at least be classed as aggravating. Surely the breathing of a considerable amount of dust of any nature will irritate the membranes of the nose and throat, producing a cough as well as a tendency to asthma and shortness of breath.

The use of a dust respirator designed and approved for nuisance dusts will eliminate this condition and such protection should be worn whenever it is impossible to provide a dust free atmosphere. There are varying types of these respirators on the market at the present time which are approved both by the United States Bureau of Mines and by the Industrial Commission. Those of more recent design are light in weight and very compact, provide a negligible breathing resistance, and in fact are not at all disagreeable to wear.

ABSENCE MAKES THE WAR LAST LONGER



—Drawn by Walter Hankman, East Chicago
Courtesy Continental Bulletin.

Fire, Explosions Destroy Plant

A large 3-story feed and grain plant in Jackson, Mich., was completely destroyed by fire on Feb. 2 with the exception of the reinforced concrete grain elevator connected therewith. According to the insurance report just received on this \$100,000 loss, much of which was grain ruined by water in the elevator and feed awaiting shipment, "the plant had accumulated considerable dust over a period of many years and several dust explosions occurred soon after firemen applied the first hose streams."

Soybean Mill Burns

Spontaneous ignition of crushed soybeans stored in wooden bins caused a \$125,500 fire loss to an Arkadelphia, Ark., soybean mill on March 5th, according to insurance authorities.

Explosion, Safety Films Available

Available to SOGES members are films on dust explosion prevention and safety. Write your sec'y office for them.

CONDUCTIVE BELTING ENDS STATIC HAZARD

"CONDUCTIVE" rubber belting which will eliminate static formed by friction, cause of many dangerous explosions, is reported by Arthur F. Keenan, Chicago, of the U. S. Rubber Co. The conductivity feature is especially desirable in hazardous areas and also in handling material which carries electrostatic charges. The trade name "Uskon" will be used.

The product was made possible by a discovery which turned rubber, originally an insulator, into a conductor. Thus in a product made from this substance static electricity which accumulates is harmlessly carried off. Because of the low resistance of the material, however, there is no danger of an electrical connection from one transmission line to another should an accidental short circuit occur.

Transmission belts are the friction surface envelope type. They have been subjected to severe tests at speeds from 100 to 4000 ft. per minute with the humidity as low as 16%. When the resistance of the belts ran as high as 100 Megohms, measured between two electrodes one inch apart, these belts had shown no static on a sensitive gold leaf electroscope.

Two types of conveyor belts are supplied, one with a 2500 to 3000 lb. long wear conductive cover, and the other with a 1000 lb cover for less severe service. Conductive V belts are also available for drives on fans handling explosive vapors or equipment in hazardous industries.

Plant Housekeeping

By ELRAY N. DIETMEIER, Superintendent

Elevator "K", Archer-Daniels-Midland Co., Minneapolis
Before The Grain Department's Monthly Safety Meeting

Success Depends Upon Executive

WE WILL discover that ORDERLINESS goes hand in hand with CLEANLINESS. Each helps to maintain the other. ORDERLINESS in our case means systematic planning and execution of our everyday work from the first thing every morning to the locking of the door every night.

There are certain routine maintenance jobs about the plant which should be performed by individuals assigned to these specific tasks.

In making such assignments you will know who does what and can rely upon it to be carried out satisfactorily.

All tools, equipment, and machinery must be kept in a state of good repair and safe working condition. When something wears out or breaks down, repair it immediately. This helps to keep it safe and always ready for immediate use.

Keep all washrooms and lockers clean and free of old, dirty, dusty, and greasy clothing. The men should hang their work clothing in lockers when it is not being worn. All oily waste, rags and discarded clothing, paper, and other refuse should be burned or otherwise disposed of im-

mediately as these items create a serious fire hazard.

Check Out-of-the-Way Places and Neglected Items

ACAREFUL and periodic examination of all fire extinguishers will make our plants much safer places in which to work. Careful inspection should be made of shops, lockers, washrooms, offices, tunnels, galleries, conveyors, legs, and all out-of-the-way places.

Keep all floors and passageways clear of obstructions such as bars, shovels, tools, buckets, boards, or anything that may cause someone to be injured. All these articles can be kept in a designated location where everyone can have easy access to them. I believe that the old rule, "A place for everything and everything in its place," applies here. This rule will make ORDERLINESS extremely easy, and the same goes for CLEANLINESS.

Good housekeeping will definitely have a favorable effect on the accident records of our plants. With our experienced manpower being drawn off into service or other occupations, our accident records have become alarming. Many accidents can be traced directly to such causes as:

1. Loose objects falling from above, such as tools, pieces of concrete, bricks, or any object likely to loosen and fall upon someone below.
2. Falling on wet, slippery, and dirty floors. Keep floors dry and don't spill oil or grease. Clean up all spills promptly.
3. Tripping over shovels, brooms, trucks, and tools carelessly dropped or left by workmen. Keep all your working tools in their places.
4. Protruding nails, bolts, and slivers from metal or wood. Remove and dispose of these. Keep all floor openings closed, bin covers in place and tight so that no one can step through and injure himself.
5. Dirty windows, light globes, and reflectors. Keep these clean and in good shape and you'll have better light—there's never too much light in an elevator.

Develop order and system in the methods of doing all jobs, whether it is lifting a sack of grain or opening a boxcar door. There is always a right way to do anything. If you don't know how to do it right, find out from someone who does.

The foreman and superintendent

THE common definition of plant housekeeping to us is simply ORDERLINESS and CLEANLINESS. It also means the manner in which we plan and carry out the process of work under our supervision. While there are many phases of work for us to consider, our ever-present problem lies in the word CLEANLINESS and what we must do about it in regard to the grain elevator.

We should always bear in mind this extremely important word. Within it lies our salvation. Every one of us is familiar with the profound danger of fire and explosion which constantly confront us in the grain industry. So, let us consider these dangers our number one problem-children and keep continually after them.

We may find it impossible to keep our plants absolutely spotless and dustless in reality, but we can approach perfection in this respect and lessen the dangers by the constant application of our old friend, CLEANLINESS. This means that sweeping must be regarded as a major MUST in your plant.

Therefore, the sweeper really is a key man in the plant, and his job is one of the most important. Do not consider his to be just a good spot to place an old man or a boy; fill it with a conscientious and competent employee.

Electrician Must Help Here

ALL DUST must be removed and gathered from the floors, beams, shelves, walls, machinery, windows, and ledges. Be sure that all electric motors, fuse boxes, junction cabinets, are thoroughly blown and dusted out.

It is wise to have your plant electrician put a little special attention on your electrical equipment—such as the fuse and junction cabinets—for improper dust conditions. Check carefully the insulation of the wiring, especially where wires are joined and taped.

He can clean all electrical equipment such as motors, transformers, cabinets, etc., with dust brushes and compressed air. At the same time he can check the system for poor wiring and such dangerous spots as may develop from wear and tear.

Your dust-collecting systems should be examined to see that they are all working properly, and that all cyclones are clean so as to give maximum efficiency. All of these chores must be performed with regularity. We find that the busier we are, the more necessary these duties become.



Frank Beaven

"This part where you were talking to your wife isn't to go in this letter, is it?"

Courtesy This Week.

"No! But make reservations for us both for the Superintendents' Convention in Chicago, June 15-16-17 right now."

can set good examples by seeing that correct practices are carried out and by showing the men why each job must be done properly. The men will cooperate with you when they know what it's all about.

BLOCKING EXPLOSION PROPAGATION

If dust explosions could only be ushered directly outside from their point of origin the loss of life and property would be lessened considerably, in the opinion of everyone who has sought a solution to the problem. It doubtless was with this thought in mind that Edwin Ahlskog, retired Chicago elevator designer, perfected a trap door for belts to prevent an explosion from communicating from one section of a plant to another—as in the case of the recent blow-up at North Kansas City.

It is our understanding that quite a few installations of this device have been made, and that at the Missouri Pacific Elevator in St. Louis a few years ago a minor explosion was prevented from disastrously propagating into another section of the plant by these trap doors, originally designed

as fire doors, but now strengthened for the purpose outlined. Mr. Ahlskog welcomes all to use this trap that can do so advantageously.

FIRES FORCE FAMINE

By T. Alfred Fleming

Chairman, N. F. P. A. Committee on Fire Prevention and Clean-Up Campaign

Fire reduces our war production almost a million dollars a day. Any manufacturer, merchant or home owner who allows a preventable fire to occur is giving direct assistance to the enemy. Losses in our supply of food from fire redoubles the need of the rationing system for the United States, Canada and our Allies. It is our patriotic duty, as well as a privilege, to safeguard accumulated essentials for our forces overseas.

How Fires in Industry Start

The majority of fires in industry can be traced to four general causes:

(1) Open flames, or high temperatures produced by them: stoves, furnaces, ovens, lamps, candles, gas jets,

matches, smoking, heated pipes and surfaces, dryers, etc. (2) Friction: Hot bearings, rubbing belts, grinding, picking, polishing, cutting, sawing, drilling, etc. (3) Electricity: Electric sparks, arcs, heated resistances, etc. (4) Chemical reactions: Use of reagents, acids, oxidizing agents, etc.

What to Do to Prevent Industrial Fires

A primary requisite for fire safety is "good housekeeping," in business as well as in the home. Hence, clean up the premises. Rubbish makes convenient fuel for flames.

Second only to cleanliness is frequent inspection of fire extinguishers, sand and water pails, and hose connections and hose lines.

Employees should know what to do in case of fire. Even the simplest kind of organization is better than none. Doing the right thing first is perhaps the most important thing in case of fire. Employees should be drilled frequently.

Periodical inspections should be made of the definite fire hazards such as defective heating equipment, defective electric wiring and appliances, smoking in unsafe locations, improper use of gasoline and other flammable liquids.

Metal containers with covers should be provided for ashes, waste and combustible packing materials. Lockers (which should be of metal) should be examined frequently to see that workmen's clothing is not likely to be the source of spontaneous ignition.

Fire escapes should be clear of obstructions, maintained in good repair, and fire exits should be adequately marked in conformity with the law.

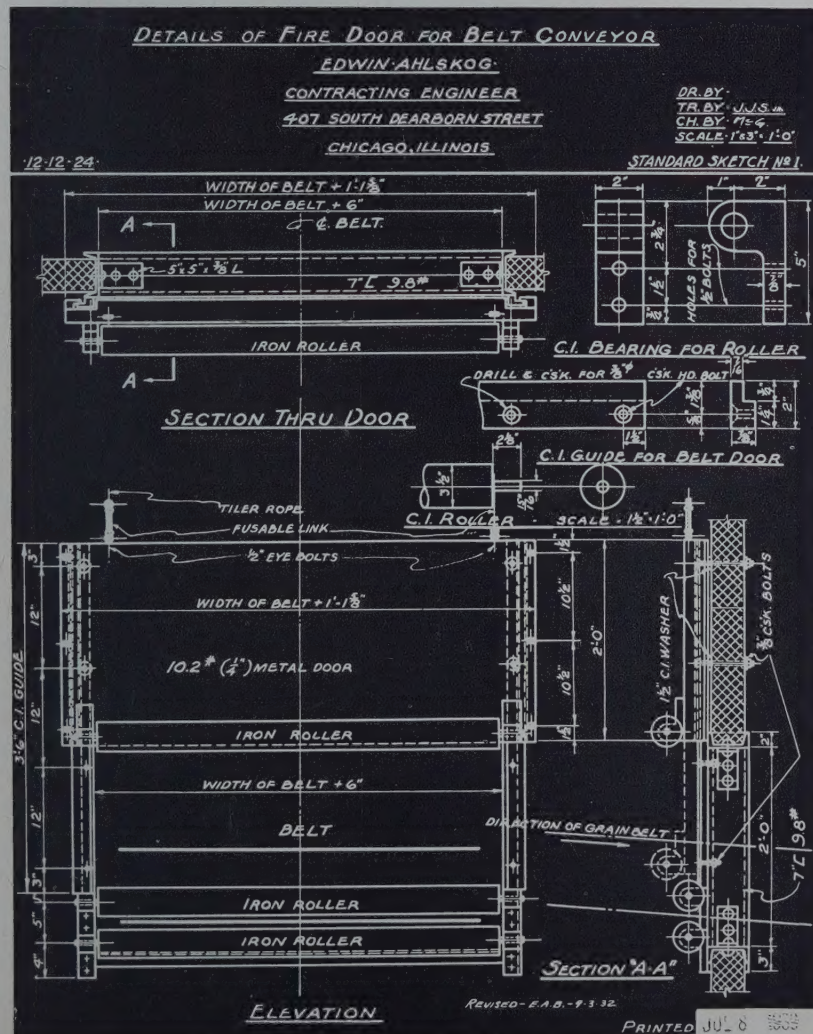
Fire doors designed to be kept closed should be kept closed. Other types of doors are designed to close automatically in case of fire. Keep these doorways unobstructed so that the doors can close when necessary. Most basements should be kept effectively fire stopped with fire doors, etc., to prevent fire from spreading upward.

Make sure, by proper inspection, that the automatic sprinkler equipment is ready for service at all times. Sprinkler valves should be kept open.

Rubber Cannot Be Made Profitably from Wheat

The Hon. Mr. C. D. Howe, Minister of Munitions, in the House of Commons recently stated that "Synthetic rubber is being made at Sarnia from petroleum (an imported product) at one-third of the cost at which it could be made from wheat." Mr. Howe said further that they expected shortly to bring costs down to about 20c lb., and that ultimately Buna S synthetic rubber might be produced at Sarnia for as low as 16c or 17c lb.

This apparently disposed of any possibility of the use of wheat for the manufacture of artificial rubber.—Searle Grain Co., Ltd., Winnipeg.



Regrets won't pay Your Losses -but You can avoid Both by installing



IN recent months, several serious dust explosions in the grain and milling industry have caused huge losses—in some cases over a hundred times what it would have cost for a complete protective dust control system.

Ratings are now being granted for dust control equipment to protect grain handling plants. "FOOD is needed for VICTORY, now!"

PROFIT by EXPERIENCE

The DAY organization has been solving dust control problems for 62 years. DAY facilities include engineering, fabrication and installation of entire systems—large or small—including all required sheet metal work. This experience and equipment are at your service.

The DAY DUAL-CLONE

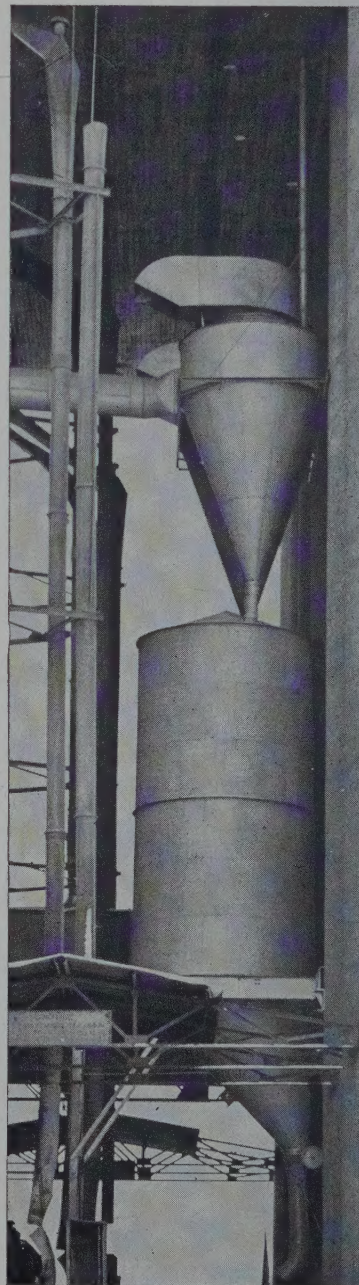
This patented Dust Collector is the key to the uniformly successful operation of DAY DUST CONTROL Systems. Its advantages include low resistance, high separating efficiency, compact space-saving design, easy installation. Available for many different applications.

*Important information for you in our booklet
"DAY DUST CONTROL". Write for a copy.*

THE DAY COMPANY

814 Third Ave. N.E. Minneapolis 13, Minn.

In Canada: The DAY Co. of Canada, Ltd.



One of many types of DAY installations at a grain elevator. The dust is discharged directly from the dust tank into box car below.

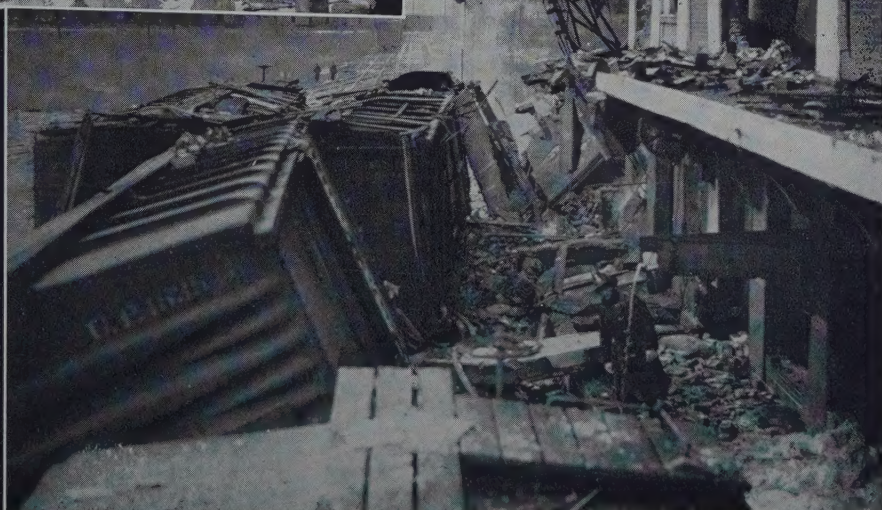


Above: Close-ups of the North Kansas City explosion depicting its freakishness. Some hoppers bin bottoms are said to have given way, the reinforcing being drawn to the thickness of a hair; others mushroomed upwards.

Left: Note manner in which windows reacted; also freight car heap.

Below: Close-up of twisted debris.

—Photos courtesy Kansas City SOGES.



Chattanooga Terminal

First of Many

HERALDING intensive development of the continent's streams is a river terminal warehouse at Chattanooga, nestled in the scenic valley of the Tennessee River—the first of four rushed to completion to speed the barging of war supplies. Decatur and Guntersville, Ala., and Knoxville, Tenn., will have the others.

A glance at the map showing the interconnected inland waterway system is startling to the uninitiated as to area now reached by water, and details released in connection with the opening of the Chattanooga terminal bring one out of the depths of thought with a jerk.

The construction of nine huge TVA power dams on the Tennessee, each equipped with locks and linked by 7½ ft. navigation channels, has made this waterway serviceable from Paducah to Chattanooga. An extension to

Knoxville is just about to open, and river-length dredging that will provide a constant 9 ft. channel depth will add 652 water miles in all to the 5,000 miles of main "trunks."

An increasing flow of barge borne traffic has nosed up this river just as rapidly as the deepening of the channel would permit, and in this movement grain shipments have been conspicuously prominent. The Mountain City Mill of Chattanooga has been barging in the bulk of its wheat, conveyed by private barge lines and delivered to privately owned terminals for nearly three years. The Cargill interests have taken over a mill and elevator at Guntersville, and are reported to be negotiating for an elevator at Chattanooga or Knoxville. And the Nebraska Consolidated Mills is understood to be planning a storage capacity boost from 360,000 to 1,000,-

000 bu. at the O. L. Wells Co. mill they purchased not too long ago at Decatur, Ala.

South Planting Wheat

FURTHERMORE, there is a very definite trend in increased wheat plantings throughout the North Alabama cotton country as a cash spring crop and for diversified planting, which is much needed and works in well to supplement acreage limitations and labor problems in the West.

A questionnaire filled in by 3,700 shippers in 191 communities along the Tennessee indicates that the 43,140 short tons of grain moved to private terminals in 1940 will skyrocket by next year to (short tons):

Wheat	136,373
Corn	71,769
Oats	13,269
Wheat flour	5,667
Feed	3,290
Grain n.o.s.	2,600
Cereals	1,021
Barley	332
Meal	123
Other products	360

This will represent from 100 to 125% increase over last year's figures and will give our readers a fair estimate of the movement of grains and grain products this year—all made possible through the provision of new storage elevators, et al.

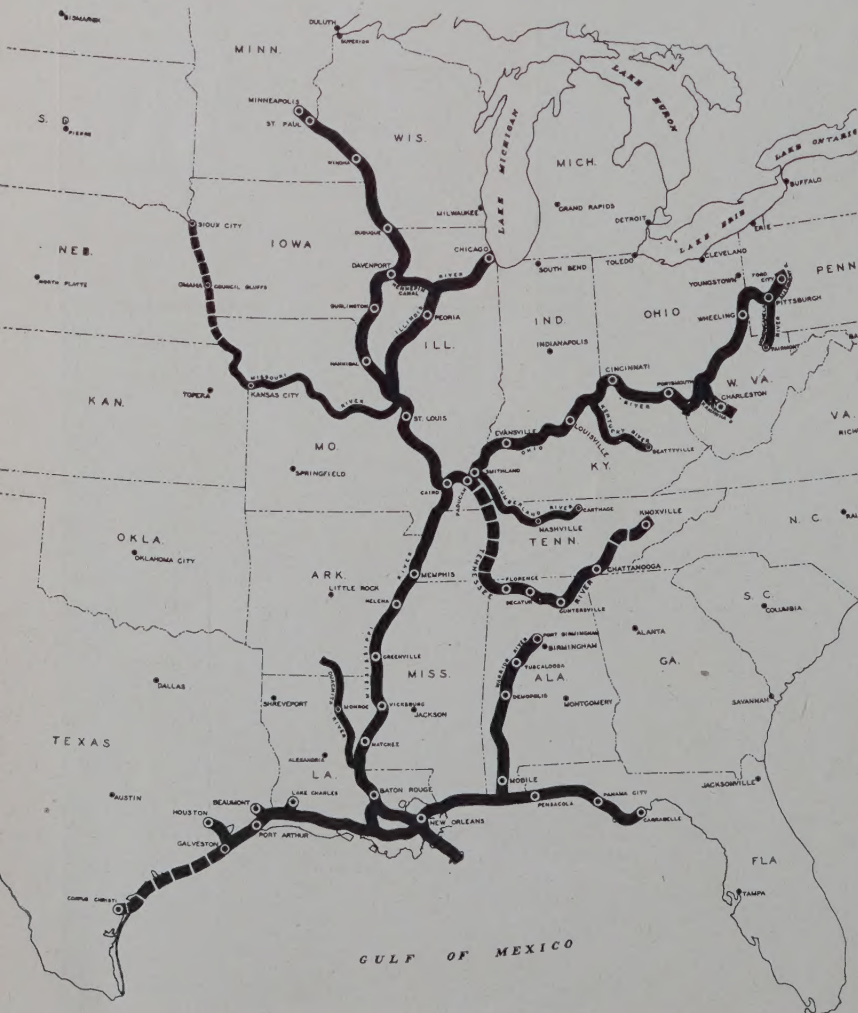
Milling Institute Expanding

Mills are beginning to realize the importance of the International Institute of Milling Technology, not only as a scientific body, but as a clearing house for technical information, states Sec'y Newton C. Evans, 4338 N. Clarendon Ave., Chicago, in reporting that the following have become members:

Mayflower Mills, Fort Wayne, Ind.; Shellabarger Mill & Elevator Co., Salina, Kan.; Tennant & Hoyt Co., Lake City, Minn.; Tri-State Mlg. Co., Rapid City, S. D.; Morrow Mlg. Co., Carthage, Mo.; Bonville (Ind.) Mills, and Beaver Dam (Ky.) Mlg. Co.

The immediate objective of the Institute is to set up and maintain cooperative milling research for the benefit of its members. This will be headed by a well qualified Research Director who will have the assistance of specialists in all branches of milling. "The advantages of the plan are obvious," the report points out, "since it will enable supporting members, not large enough to maintain their own research staffs, to have access to invaluable technical data."

Bulletins are now being issued monthly to members and it is hoped to bring them out oftener, commencing shortly. IIMT now has active members in 26 different states and two provinces of Canada. It is assured of active support in European countries following termination of the war.



Spouting Gulfward

By Phil A. Grotevant, Before Chicago Chapter

Society of Grain Elevator Superintendents

MY EXPERIENCE in the elevator business down on the Gulf may be as interesting to you as it was to me, for remember, my inception, reception, conception, but I hope not resurrection, was in the grain business north of the Ohio River. Consequently, when I found myself in charge of the Kansas City Southern's Export Elevator at Port Arthur, Texas, I was faced with problems that were, to say the least, a little unusual.

The first was that old bugaboo, weevil. I thought I had seen 'em in full bloom before but I never reckoned on the conditions I found down South. Say, that elevator was literally crawling with them, and I don't mean maybe! The great-grandfather of all weevil must have chosen the South as a homestead.

It took a mighty lot of ingenuity and good old elbow grease to persuade the little devils that this wasn't their home, but we made the grade and by the time the new crop rolled in there was nary a bug.

Surprise number two was the vessel loading. Sure, we filled the shipping bins and poured the stuff into hatches—but what I meant was the difference in crews. Up North in the Great Lakes region we are accustomed to the usual run of fresh water crews spiced up occasionally by a Norwegian outfit, but down South, suh, we find birds of another feather. For instance, the English vessels plying this trade route usually have Hindoo crews. These fellows follow the customs of their native land, and to the Occident observer they naturally appear distinctly different.

Never Touch a Drop

GOAT meat, rice and gravy form the main bill of fare, while good old aqua pura washes down the morsels. The true Indian does not believe in alcoholic drinks. But speaking of this submerging of the gullet, these little fellows have a system all of their own. They drink from a "monkey jug," a queer looking spouted container which resembles an oversize teapot. But here's the rub—instead of touching the spout to their lips, the brown boys tip back their heads and carefully pour the liquid into their open mouths.

They also have a native distaste of knives, forks and spoons, and so, when they squat around the dinner pot (they never use chairs), the left hand fingers are brought into play for the purpose of conveying the bits of food to the proper physical place.

They are sun worshippers, too. Each crew has a religious leader who sets the pace for ritual at sun-up and sun-

down. At these times they kneel and touch their foreheads to the deck in invocation to the sun.

Getting back to the elevators down in the land of wheat and cotton, I wish to mention the type of workmen employed. In the K. C. S. Export Elevator the only white men I had were the engineer, two weighmen, a spoutman and a clerk. The balance were negroes. Of course, my experience with the colored brethren had up to that time been limited to an occasional shoeshine or a porter's brushing, but down there I learned what a dusky crew demands.

In the first place, I learned that a Negro crew must have a Negro overseer. A white man cannot get near so much work out of them as one of their own race. So allow me to introduce a character, Bossman Brown, who kept the dark-hued boys in line for me at the old K. C. S. Export.

Bossman Brown is a venerable old Negro with snow white hair. His age can never be verified, but suffice to say he was born a slave on the old Brown plantation "befo' de wah"—and he doesn't mean the world war nor the embroglio with Spain in the 90's. He means the Civil War, or, as he puts it, "De wah between States."

Bossman naturally took the family name of his owner and it doesn't seem at all unusual to him to have several brothers born on other plantations who answer to names such as Lee, Roberts, and Parker.

Going to Reform Soupbone Jackson

OLD Bossman Brown came into my office one day and said, "Mistuh Phil, you-all's from de No'th, so I'ze don't know whether you 'proves of de way Ah handle lazy niggus or not, but Ah just got to make a good nigguh outen dat Soupbone Jackson



Pvt. Snooper, the Boiler Room Cat, says: Let's go ALL OUT for Safety and insure ALL OUT production.—C. Gibson Franks.

boy, if you-all don't mind, Mistuh Phil!"

I told him to go ahead. He bowed and left the office. A short time later I heard a most horrible commotion outside. Dashing from the office, I pulled up short at the sight which greeted my eyes at the workhouse, for there, in grim procession, were four stalwart darkies carrying Soupbone Jackson spreadeagled face down and bringing up the rear marched a stern Bossman Brown carrying a four foot length of inch and a half transmission rope. The hullabaloo issued from the frightened lips of Soupbone.

Having already told the overseer to use his own judgment, I just stood back and awaited developments. It wasn't long until they arrived. The recalcitrant boy was held over a barrel and Bossman Brown, biceps bulging, energetically applied the stinging rope to the exposed portions of Soupbone's epidermis. And that was a large area, for the accepted standards of attire for elevator laborers down there is simply a sawed-off pair of overalls—"shorts," we call 'em.

When the indignant overseer had quite finished, he said, "Soupbone, is you-all now g'wine to hold up your end?" And poor Soupbone sobbingly replied, "Yassuh, yassuh, I sho' is, Mistuh Brown!"

I beat a hasty retreat back to my desk and sat there a long time pondering over the amazingly different methods employed in different sections of the map.

In conclusion, I wish to add a note to the praise of the Lone Star State's wonderful hunting and fishing facilities. In my seven years down there I took advantage to share in that sportsman's paradise at every opportunity and the memories of those excursions into the realm of Nimrod are something to treasure.

THE SAFETY ENGINEER'S CREED

By H. W. Puetz, Milwaukee

Safety, Security, Happiness.
American ingenuity and inventiveness.
Faith in his fellow man.
Exact methods of accident prevention.
Timely warnings of possible hazards.
Your guardian against injury or disaster.

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New and safer working conditions.
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Impartial service to all Creeds, Races and Colors.
Never tiring, always leading, ever watchful.
Engineering for safety are his gifts to man.
Effective guarding against machine and man failures.
Rewarding humanity with his prevention of disease, injury and material damage.

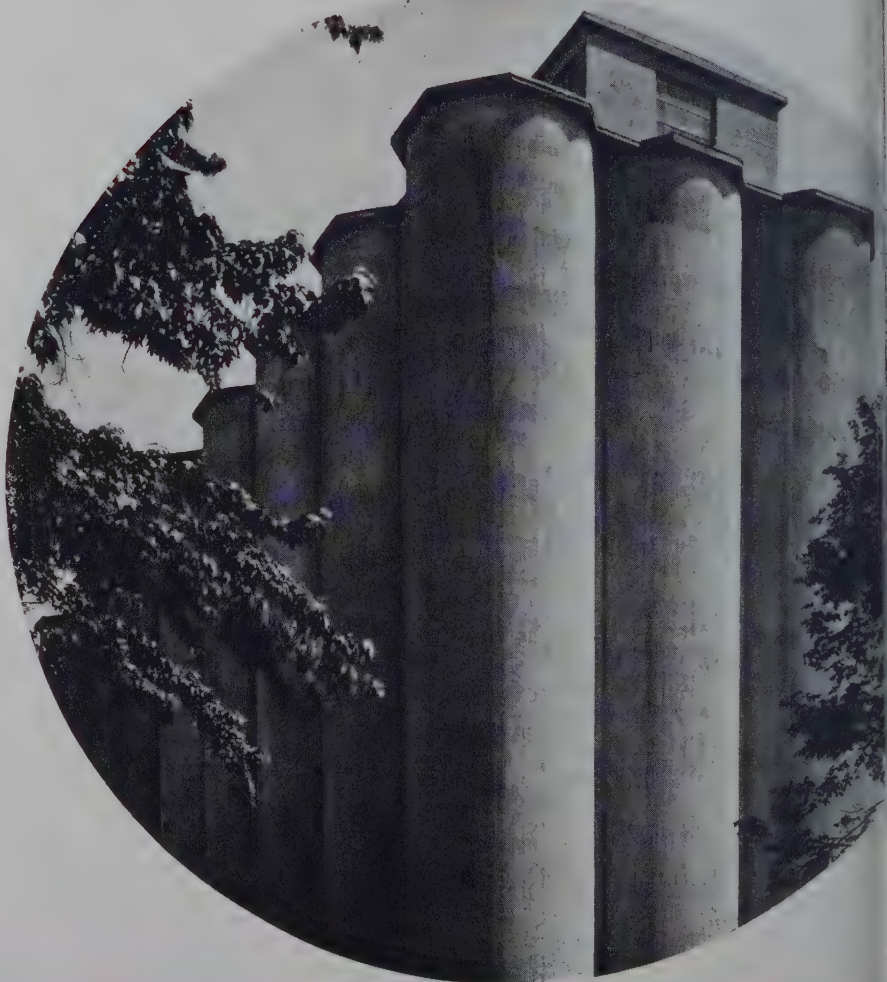
...Yes, PR

IT *Stands to Reason!*

For you with big investments in plants and contents, the best weatherproofing is invariably the cheapest—and therefore the most profitable.

Furthermore, you will also agree that weatherproofing grain and grain processing properties early obviously avoids costly disintegration and safeguards against the development of new movement cracks as well.

And wouldn't it appear that a thick, built-up, flexible, "skin-like" product which requires 5½ times as much material for application is the answer to all of these requirements?



Call in

B. J. MANY CO



PROFESSOR QUIZ:-

Weatherproofing is necessary because water not only damages the grain, but is the sole cause of deteriorative action in any concrete structure.

Question:

Why do you say water is the sole cause of the deteriorative action?

Answer:

Steel corrodes and expands, but water alone causes this corrosion . . . Ice causes serious damage, but it requires water to create ice . . . All other deteriorative action is the direct result of moisture in the concrete.

Question:

Is it difficult to make concrete tanks watertight? If so, why?

Answer:

Yes, it calls for exacting skill because of the many movements caused by the loading of a single bin or the erratic unloading of all tanks, expansion and contraction due to alternate wetting and drying, and many of the other factors with which operators are familiar.

Question:

How can you make a tank weather-tight when you must contend with these continual movements?

Answer:

It is a conceded fact that one must provide a very heavy, flexible film. This must be sufficiently thick so that it will stretch over cracks which are continually opening and closing.

Question:

How can such a sufficiently thick film be obtained?

Answer:

The only way it can be obtained is by building it up. We use four successive layers, each layer being shot on as thick as possible without running. Each thickness is properly "cured" before the succeeding film is applied.

Question:

Will such a thickness of materials remain permanently bonded to the concrete?

Answer:

IN-FIL-TRO-FLEX—our especially compounded product—forms a perfect bond as is evidenced by many installations of over ten years' standing which are just as water-tight now as when completed.

Question:

Then why is there so much groping with the problem of weatherproofing grain tanks?

Answer:

There isn't any problem as far as we're concerned for we've solved it in this way:

We manufacture our own products especially prepared to meet all the above requirements—but we sell no material. Instead, we handle all our work under contract and guarantee for your greatest satisfaction and savings.

Equally important, our engineers and mechanics are all experienced in this very exacting type of work. Why not consult us today?

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Respiration and Heating of Damp Wheat

From a Paper by Dr. R. K. Larmour of the Saskatchewan University
Presented Before the Society of Grain Elevator Superintendents

THE spoilage of wheat when stored at moistures of 16% or higher is due principally to the germination and growth of moulds, the spores of which contaminate the wheat probably in the stook or at some earlier stage. With wheat at high moistures, these fungi grow freely, producing heat, due to their respiratory processes.

The temperature of the mass of grain increases with increase of fungi until finally at about 45-50 degrees C. the growth of the spores becomes inhibited, at least to a certain extent. Heating grain usually does not rise to a temperature above 50 degrees C. with wheat in small bulk. We have no definite observations as to the upper temperature limits of damp grain stored in large bins.

Heat produced by the natural processes of the wheat embryo seems to be a rather negligible quantity. Even at moistures as high as 20% the respiration of sound wheat is quite slow. It may, however, serve to stimulate the activity of the fungi at the beginning of heating.

Any substance which will effectively inhibit the germination of the spores and their subsequent growth will prevent heating of damp wheat. Most of these fungus growth inhibitors are not applicable to wheat because they are either poisonous to humans or they ruin the viability of the wheat.

And Some Fumigants Do Wonders

IN THIS class would be included such inhibitors as HCN, SO₂, NH₃ and many other proprietary substances, which contain poisonous ingredients. In the work carried on at the University of Saskatchewan it was found that both carbon bisulphide and carbon tetrachloride, as well as mixtures of the two, effectively prevented germination of the spores that commonly infest wheat, and that the application of these substances to damp wheat

prevented high respiration and heating.

The carbon tetrachloride seems to be especially adapted to this use, because on drying the wheat the reagent evaporates, leaving no detectable smell, and even large dosages have little effect on the viability of the wheat. As carbon tetrachloride is widely used as a fire extinguisher, its application to the problem of the prevention of heating damp grain would decrease rather than increase the fire hazard in elevators, and there could be no likelihood of explosions resulting from the use of this compound.

It should be pointed out that treatment with carbon tetrachloride does not kill the fungus spores any more than it kills the embryo of the wheat. It appears to be strictly an inhibitor. When the concentration of vapor becomes low due to absorption and diffusion, the spores tend to germinate and the fungus grows freely.

In considering any commercial application of this substance, therefore,

it is necessary to devise means for not only dosing the wheat at the time that it is put into storage, but also for maintaining an effective concentration of the vapor during the time that it remains in storage. It can be used, therefore, only as a means for preventing damp wheat getting out of condition until such times as the grain can be moved to driers in which the moisture can be reduced to the safe limit of 14%.

Knocking Wood

How often have you made a statement about a good safety record and then quickly looked around for a piece of wood on which to knock?

Accident prevention work isn't a matter of superstition or luck. You either have your plant organized for safety or you don't. If you haven't the problem under control, all the wood knocking in the world won't make your plant safe. If you have done a real job for the safety of your employees, you won't need to knock wood.

Safety is a matter of production, planning and supervision.

The next time you are tempted to "knock on wood" over a safety record, remember that such an act is an indication of a weak program.

Don't "knock wood"—KNOW you are safe.—George Steel.

Sam Fears to Burlington

Sam P. Fears, formerly located at Kansas City, is now associated with the Norris Grain Co. at Burlington, Iowa.



I'm sure wants dat job, but doggone if I know how to wash dem birds.

The Steinlite

Electronic Moisture Tester

FAST—Makes a moisture test on grain and other food products in one minute—not 30 minutes as required by other testers.

ACCURATE—Calibrated against official government oven methods.

EASY TO USE—Like tuning a radio.

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RECOMMENDATIONS FOR SAFETY PRACTICES IN ENTERING GRAIN OR MEAL STORAGE BINS

Through the leadership of Clarence Turning, SOGES Safety Contest Director, and exhaustive Safety Study Course is now in the hands of an enlarged Safety Committee for final recommendations and approval. A survey appearing in "GRAIN" on the safety procedure to follow in working in grain bins, however, reflected the desirability of crystallizing practices therein. Each Superintendents' Society Chapter was requested to contribute their ideas, the final provisions to be incorporated in the Study Course.



Clarence Turning and Paul Christensen.

"Cliff MacIver, Malcolm Noxon and I have had several conferences on our recommendations for safety bin practices, and we trust the following covers the subject," writes Paul H. Christensen, Van Dusen-Harrington Co., Minneapolis.

"I think the Minneapolis boys did such a commendable job that this contribution to safety practices should not be held up for exclusive publication in our coming Study Course," instructs Clarence Turning, "but should be given the industry right now. Also it will stimulate thinking along this line and perhaps readers will think up another point or two to be added; likewise the other Chapter committees will get busier with their recommendations. So print it in 'GRAIN' as soon as possible."

Here it is, folks. Put it to work in your plant today!

1. Never permit a man to enter the top of a bin from which grain or meal is being drawn, unless thoroughly fastened in a bos'n chair, or suspended in an approved type of safety harness, and then never to be lowered below the topmost level of grain. Any man suspended in either a bos'n chair or safety harness should have an experienced man in constant attendance at the top of bin. Never permit a man to enter the top of any bin unless the necessary precautions have been taken to see that the bin has not arched beneath. Supervisors on distributing floor and in shipping tunnels should be informed whenever a man is assigned to work in a bin.

2. Never permit a man to enter a manhole at the bottom of bin until the remaining contents of bin has been examined from above to deter-

mine that no material is hanging up.

3. Never leave tools, shovels or other equipment near a bin opening where it might fall on men working in bin.

4. Use only approved G-2 floodlights for illuminating the interior of a bin—**never use an ordinary extension cord** with droplight hanging in bin.

5. If a hoist is used, it should be a fool-proof device which is equipped with a dependable brake or other controls, either electrically or manually operated, which would eliminate any hazards of a man dropping into a bin other than at controlled speed. A man should never get into a hoist of any kind without first inspecting it thoroughly to see that everything is secure and safe.

6. While grain is being poured into a partially filled bin, no man should



Malcolm Noxon and Clifford MacIver.

be permitted to enter it until it is filled to floor level.

7. Men working in bins should be

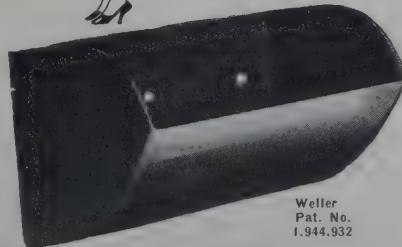
provided with goggles and dust respirators. It is also advisable to furnish the men with skullguard helmets.

8. We must not forget that under certain conditions there is a possibility in grain bins of a concentration of poisonous gas, or a deficiency of oxygen, either of which might result in the death of a man entering a bin. The practice of one experienced elevator operator is to train his men to engage in continual conversation between the hoist operator and the man who is being lowered until the operator is assured that the man in the hoist is safe at the bottom of the bin. No man should ever enter a bin for the purpose of treating it—or a bin which has been treated—without wearing a gas mask.

Instruct the Novice

I enjoyed reading the article on the Safest Method of Working in Grain Bins. My best idea is to impress the novice with the hazard involved and fully instruct him not to fool around in the center of the bin when alone. And in the event we start at the top of the bin and sweep down as the grain is being pulled out, it is best to draw the grain in such volume as to keep the sweeper busy so he won't get any pioneering ideas about pushing his luck at the center.

Certainly, we have all seen sweepers play around—and in the vortex—and even venture to be drawn in. Even did it myself years ago, but not when alone in the bin. If the grain is in normal condition the danger is nil, providing the sweeper plays fair. But by all means a safety line should be used at all times today.—Bob Hunt, Tacoma, Wash.



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More than 1,000,000 Calumet Cups have been installed. Results prove their superiority in every respect . . . greater freedom from fraction . . . longer life . . . better balance, closer spacing and faster belt speeds . . . and 10% to 100% greater capacity.

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Years of extensive usage give assurance that Weevil-Cide possesses "balance" with stability of formula that *continuously* meets every fumigation requirement.

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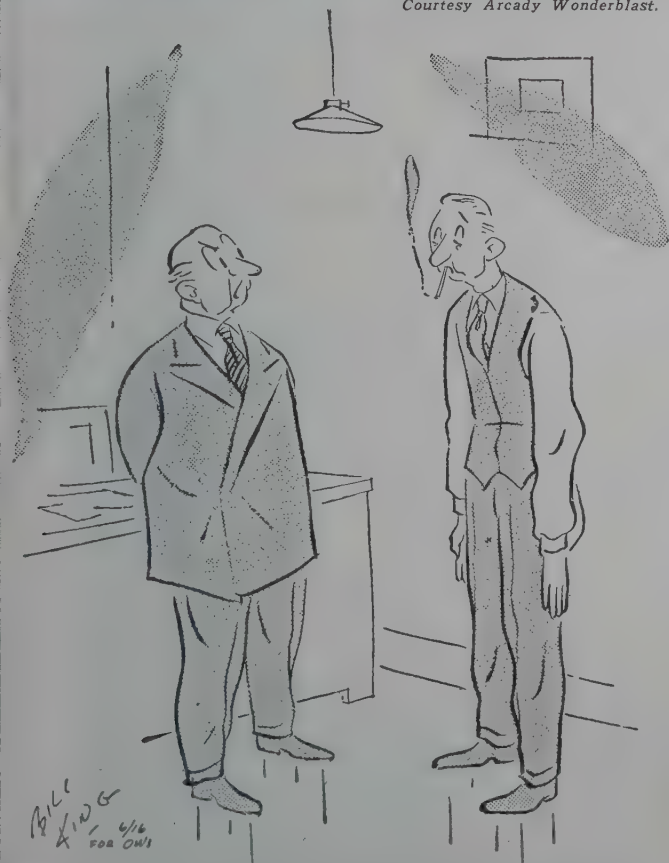


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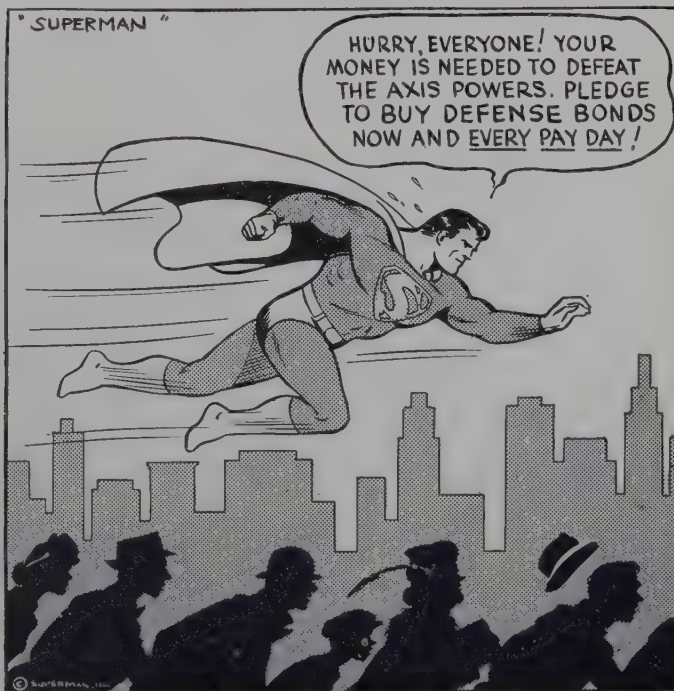
Courtesy Arcady Wonderblast.



WHEN THE GOVERNMENT ASKED THAT WE BEGIN AND END OUR VACATIONS IN THE MIDDLE OF THE WEEK. FOGBOOTHAM, IT DIDN'T MEAN TO MAKE A WEEK-END FROM WEDNESDAY TO WEDNESDAY "



Kid Salvage



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THIS IS YOUR WAR, MR. ABSENTEE!

Pvt. Richard J. Beyers, Arcady Farms Milling Co.,
Stationed Somewhere in the South Pacific.

Regardless of *what* you may think, you *can't* do as you please now!

War has been declared upon this country, and war freezes many things besides prices. It freezes many rights that are ours in peacetime.

Under a declaration of war, this country can, if necessary, draft every faculty you have which is capable of being used to defend the nation.

Your muscle, your brain, your energy are vital to the war effort *every* working day. Under a declaration of war, these are no longer yours. They belong to your country. No matter *what* you think, you do *not* have a right to lay off just whenever you want to.

War is *not* a time for earning big money and taking days off unnecessarily to have a good time with it.

War is *hell* for the men at the front, and it never was intended to become a *heaven* for you!

The "rights" you are exercising when you lay off, when you go shopping or fishing or hunting or traveling when you should be at work, are the very rights for which other men are out there giving their lives so that we may have them again—you as well as the rest of us—when peace returns.

Japs, Nazis Kidnapped Your Rights

YES, you may be a citizen, and you may have *had* certain rights, but the Japs, aided by the Nazis, came out across the Pacific and kidnapped those rights, and our boys are out there now doing their utmost—24 hours a day—to keep them away from our shores, from *your* home and from *your* family!

This is not exclusively the responsibility of the armed forces. They can't *make* the arms they have to use. It is our job here at home to make them and keep them moving—every day—every hour—every minute.

And, Mr. Absentee—you who use American streets, buy from American stores, use American transportation, live in American undarkened homes, enjoy American privileges—this is *your* responsibility, too! You are not entitled to any more personal privileges in this war than the man who is pouring out his blood for *you*. You may not, because of a number of reasons, be able to render the same *kind* of service as the man at the front, but you are not excused from conforming to the same rule to which he conforms—that is doing everything—absolutely *everything*—you possibly can to help your country in its life and death struggle.

Hitler Smiles at Absentees

ND remember, brother, every day you are absent from work for *any reason whatsoever*, the war effort suffers! Hitler doesn't care *WHY* you are absent, just so you *are* absent.

Maybe you haven't realized it, but you have some personal obligations in this war that you *have* to face.

You *are* obligated to change your personal habits if necessary.

You *are* obligated to guard yourself carefully against sickness.

You *are* obligated to eat proper food.

You *are* obligated to rest and recuperate on regular "off" days for that is a definite contribution to your fitness for work.

You *are* obligated to obtain a full measure of rest and sleep each 24 hours. That marvelous machine which is called the human body and which is yours *in trust*, must not be abused during so critical a period when every ounce of energy is so urgently needed.

Don't think when you are absent—no matter what the reason—that someone else can do your work without letting something else suffer. That cannot be done *in total* War. It's your responsibility to do your very utmost *not to be absent* a single working day while the war is on.

War is *hell*—and **THIS IS YOUR WAR!**—Arcady Wonderblast.

Must Give Receipt

Any employee who terminates his employment during the year must be given a receipt (Form W-2) at the time last payment of wages is made or within 30 days thereafter.

WHAT'S NEW ON INSECTS AND GRAIN VARIETIES

Our last meeting was one of the most interesting and constructive. Held on April 4th, Mr. Arthur C. Larson of the Hallet & Carey Co. addressed our turnout of 44 on "What's New on Insects and Grain Varieties?" His remarks were so illuminating, we are suggesting him for a convention speaker at Chicago.

We also discussed the approaching convention and the possibility of teaming up with the Fort William-Port Arthur-Winnipeg delegations in going down. It is rather difficult for most of the Supers to make any plans that far ahead, what with conditions so uncertain and the help situation steadily deteriorating. Nevertheless, a rough estimate on attendance would be 10 to 12 from Minneapolis who are planning on attending.—Bob Bredt, Fruen Milling Co., Chapter President.

Charles Gemlo Dies

Charles Gemlo, active Associate Member of the SOGES Minneapolis Chapter almost since its inception, died quite unexpectedly on April 9th. He was always very faithful in attendance at our monthly meetings and was certainly well liked and respected by everyone who knew him.

Charles was on the job every day, even though he had just passed the seventy mark. He made the "rounds" as usual on April 7th, in fact, he was out at our plant for a short time. The following Sunday he was working in

his yard out at his Coon Lake residence when he suffered a stroke. Taken to the hospital, it was but a few hours before he passed away.

Services were held April 12th and a large number of friends and relatives were in attendance. Charlie had served with the Strong-Scott Mfg. Co. for 44 years.—Bob Bredt, Fruen Milling Co., Chapter President.

He's Planning on Attending

If nothing unforeseen occurs between now and June 15th, you may count on my attending our SOGES convention in Chicago, June 15-16-17th.—J. C. Hughson, Toronto (Ont.) Elevators, Ltd.

Sure Planning on Being There

I sure am planning on being present at the Chicago convention this June when the roll is called. We've been plenty busy this winter but probably will have plenty of time on our hands a little later.—Bob M. Lare, Butler-Welsh Grain Co., Nebraska City, Neb.

Correction, Please

In reading your report of the talk given before the Chicago Chapter of the Superintendents' Society I notice that I made a misstatement in saying: "Official grain standards specify that the air over is used on all grains except corn and soybeans, for which the water over method is used."

The above was the case up until two years ago and the regulation was changed so that the water over method is no longer used on the soybeans—only on the corn. Therefore, I should have said: "The official grain standards specify that the air oven method is used on all grains except corn, for which the water oven method is used."

The above may not seem of any importance except that our firm is looked upon as an authority on moisture testing. I don't know how it is possible in writing my speech to have made this error, but it was probably due to the fact that I was so used to talking about the old method for many years that I automatically dictated that instead of the new regulation.—Parke W. Burrows, General Manager, Seedburo Equipment Co., Chicago.

Morgenthau Says "Thanks"

"The generous assistance offered to the Treasury Department by the magazines of America throughout these continuing war-loan campaigns has elicited my appreciation in the past. I cannot forego this opportunity to express again my gratitude for another job well done, and well done in the democratic way."—Henry Morgenthau, Jr., Secretary of the Treasury.

MECHANICAL UNLOADING

One of the most important matters that will be delved into at our much looked forward to annual convention in Chicago, June 15-16-17, will be the mechanical unloading of grain. Several of our members have developed pertinent ideas along this line that operate with as little labor as a car dumper.

Other subjects for discussion at this conclave will deal with operation and maintenance, including grain cleaning, moisture testing, and other mechanical devices. We will very thoroughly discuss all practical problems confronting all of us today.

From the gratifying enthusiasm indicated from Superintendents and Managers from coast to coast it would appear that this War-Conference of ours will assume more importance than ever, as well as to take on parallel proportions in attendance. All are invited.—R. B. Pow, Reliance Grain Co., Ltd., Fort William, President, SOGES.



Emil Buelens,
Chicago Director.

SAFETY CONTEST ENTRIES DOUBLE '43

There are over twice as many entries in the SOGES Safety Contest this year as there were this time last year, reports Oscar W. Olsen, F. H. Peavey & Co., Duluth, Committee Chairman. "This would indicate that word is getting around that this extra-curricular activity pays dividends. A third of these entries received to date are participating for the first time, and we're sure there'll be more and more and more. Here are the names of those signing up to date:

Arnold Myers, Chicago; Walter Myers, Schneider; Elmer Hapke, Gibson City; Oscar Olsen, Duluth; Laurence Hauskins, Cedar Rapids; Lewis Inks, Akron; Emil Buelens, Chicago; Herb Brand, Cedar Rapids; John Gibbs and Bob Bredt, Minneapolis; Gil Lane, Chicago; Bob Ginn, Wichita; Gordon Laugen, Chicago; Vincent Blum and Jerry Lacy, Omaha; E. W. White, Fremont; Ralph Garber, Enid; Frank Guinane and Earl Mahan, Omaha; Bob Lare, Nebraska City; Walter Teppen, Duluth; Roy Guinan, Omaha; Chester Hammerstein, St. Louis; Clyde Clark, Springfield, and Russell Johnson, Duluth.

"It costs members but \$5.00," Mr. Olsen points out. "And everyone most certainly can get many times that much benefit from the contest."

Make it easy for employees to bring in waste paper from their homes. Sell it and donate the money to a fund designated by employees.

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Carloadings Ahead of '43

Carloadings of grain and grain products for the first 15 weeks of 1944 stood at 3.9% above those for the same period of 1943, and 28.1% ahead of the 1942 figure. Recent weeks have witnessed a tapering off, but the decline is far from the 3.7% drop forecast, even considering the 6.6% increase anticipated in loadings of flour, meal and other mill products which moves in fewer cars. The record shows for the weeks ending:

	1944	1943	1942
March 18	44,958	43,140	35,568
March 25	43,261	44,979	33,732
April 1	41,110	43,326	35,337
April 8	40,117	41,959	33,861
15 weeks	739,276	711,774	577,017

Export grain unloaded at tidewater during March totaled 3,041 cars, compared with 5,653 in March '43, a decrease of 46%.

4% Carloading Decrease Predicted

The 13 Regional Shippers Advisory Boards estimate a 4% drop in the carloadings of grains during the second quarter of 1944, compared with the year previous. However, three months ago a 3.7% drop was forecast for the first quarter, which failed to materialize. These are not normal times, however, and day-to-day changes can not be foretold.

A total of 322,855 cars of grain are predicted for the quarter, compared with 336,290 actually loaded a year ago. Flour, meal and other mill products will increase 3.1% in tonnage during the same period from 218,000 cars estimated, compared with 211,525 actually loaded in the corresponding period last year.

Cargoes Not Restricted

ODT permits for the movement of vessels on the Great Lakes will be suspended until May 15th, thus allowing operators complete freedom in moving their cargoes.

Embargoes Lifted Until June

The free entry of feedstuffs has been extended until June 20th.

Wheat Grind Off Again

During February 981 mills ground 46,441,265 bu. wheat compared to 52,063,318 bu. ground by the same number of plants in January and 44,286,042 bu. ground by 1,048 mills in February, 1943. Twenty-nine reported grinding 3,270,846 bu. wheat for granular flour, which figure is not included; 184 mills with over 1,800 sacks capacity ground 38,236,591 bu. wheat, or 86% of the total.

Corn Grind Slumps

Only 10,183,918 bu. corn were ground for domestic consumption during March by the 11 refiners, compared with 10,623,810 bu. in February and 10,791,204 during March, 1943.

Precipitation 200% of Normal

Practically all of Kansas shared in the 200% increase over normal rainfall during March, reports J. F. Moyer, state ass'n sec'y. Rain has continued falling through the first part of April to an even greater degree. Moisture penetration has reached a depth where little question remains about crops maturing.

Soil-Stored Moisture Indicates Dry Land Crop Prospects

Crop yields go up as moisture goes down—down deep: That saying has become a widely accepted guide to cropping practice where the rain that falls during the growing season is not enough to make a crop.

Tests at 15 field stations have shown that the yield of spring wheat sown in soil wet to a depth of 1 foot or less was 6.5 bushels; to 2 feet it with 11.9 bushels; and when the moisture had penetrated to 3 feet the yield was 18.2 bushels. When moisture is down to one foot or less, the agronomists have found the chances of enough rain falling in the growing season to make a good crop are less than one in six.

Harvest Prospects Improve

Recent rains have markedly improved wheat prospects, the USDA estimating a 1944 crop of 601,759,000 bu.—72,153,000 bu. more than last year's production. The crop producing areas of the country have had the wettest March since 1922.

Buy Canadian Oats

The largest export trade in Canadian oats since the first World War is in prospect under plans of the USWFA seeking supplies for feed-shortage areas. Reports on the Winnipeg Grain Exchange indicate WFA purchases may run as high as 22,000,000 bu., with distribution to be made from Minneapolis and Duluth. Shipments would be made direct from Western elevators with the grain transported daily to distributing centers in from 1,000 to 2,000 U. S. railroad cars.

Back-Hauls Embargoed

Back-hauls and out-of-line hauls on grains, grain products, soybeans, seeds, feed or related commodities are embargoed by the I. C. C. effective May 1st. Shipments on hand at transit points are included. "Notify" or "advise" provisions may be disregarded, effective April 3rd, the I. C. C. told carriers.

CIO Kibitzer Goes Sour

A Kansas City CIO representative accused "speculators" and the "grain trade in general" of holding onto corn in storage while big corn refineries shut down.

E. E. Klecan, president of the Board of Trade, pointed out that of the 3,500,000 bu. in storage on April 7th:

1. Less than 1% of it was for sale.
2. The remainder was under contract to wet and dry processors.
3. There is no room for speculation.
4. There is no other thing to do with corn than to sell it to those who process it.



This is what an alert plant salvage committee scraped together in a short time at the Black Rock Milling Corp., Buffalo. It's industrial scrap like this that the WPB relies on to keep the open-hearth fires burning at full capacity to meet unprecedented 1944 war demands.

"Inexpensive Car Dumper"

I recall very distinctly of considerable interest manifested in an inexpensive car dumping machine; also in a new type of power shoveling machine. Have been searching the pages of "GRAIN" magazine for some time hoping someone had brought it about.

Let's hear from those who have their ideas perfected—or in the development stage, then perhaps together we all can bring something quite worth while into being.—Bob Hunt, Tacoma, Wash.

Many "Trimmers" in Use

Electric grain trimmers are more or less common here on the Pacific Coast, and I am endeavoring to get you some information on the subject.—Byron O. Pickard, Manager, Accident Prevention Bureau, Waterfront Employers' Ass'n. of the Pacific Coast, San Francisco.

Install Portable Unloader

A 200 h.p. 2-stage turbo-blower, acting as an exhauster, has been installed at the Spencer Kellogg plant in Long Beach, Cal. A capacity of 120 tons hourly of grain and flaxseed from hold of ship to belt within plant, is reported.

Boss Falls from Ladder

Falling 15 ft. from a moving ladder at Mill "B" recently, W. N. Kelly, vice-president of the Wm. Kelly Milling Co., Hutchinson, landed on one foot and miraculously escaped serious consequences. His other ankle had not entirely healed from a previous break at the time of his fall.

For the first time in its history the Navy will accept toothless enlisted men. Until recently the Navy required that men drafted for service have at least 18 teeth of their own.

So We Moved Again

When the U. S. Navy offices want part of your space on one side, and an expanding insurance company wants the remainder, you move. So now we're tucked away in 2800 Board of Trade Building. Come up and see us when you're in town.

Staley Starts Edible Unit

A. E. Staley Mfg. Co.'s new \$500,000 edible soybean flour plant at Decatur, Ill., is now in operation. This expansion is in line with WFA's request for increased edible production, and represents a conversion from manufacture of soybean meal.



Snooper, the Boiler-Room Cat, says: Enter your Society's Safety Contest. Any way you look at it you're bound to win.—C. Gibson Franks.

Loses Four Fingers

Roy Peterson lost four fingers of his left hand, catching same in the gears of a feed mixer in the plant of the Red Wing (Minn.) Feed & Seed Co. He formerly was head of the commercial feed department of Pillsbury Flour Mills, Minneapolis.

Farm Stored Grain Spoilage

Warning farmers to take every precaution to protect their grain from further damage, the Dominion Department of Agriculture reports that serious loss has occurred in farm stored grain in some sections of the western provinces. Transfer to other bins during cold weather, cleaning, and constant examination is urged. Insects, mites, green weed seeds, leaks, seepage, and poor ventilation have, among other things, resulted in the grain becoming "tough".

Bin Burnt Last Stages

Bin burnt wheat is in the last state of wheat sickness, say authorities, and is wholly unfit for milling.

Grain Bins For Sale

WFA will sell on a bid basis many wooden grain bins owned by CCC. The bins were built primarily for grain storage, but may be remodeled for other farm and commercial uses, a USDA release states.

Varying in size from 650 to 3,000 bu., further information may be obtained from local county AAA committees. About 2,000 wooden bins which have never been erected and which CCC has in storage at fabricators' plants are also available for grain storage, housing and utility purposes.

Corn Borer Damage High

The European corn borer caused a loss of \$33,360,000 to the '43 corn crop grown in the northeastern part of the U. S., according to USDA estimates. Based upon the \$750,000,000 crop value, this totals 4½% loss, which is double that of 1942. Indiana and Illinois were the leading losers.

180,000 Sq. Feet of Surface renewed with GUNITE and SURFACITE!

THE KELLOGG CO.,
BATTLE CREEK, MICH.



All the cracks in this fine-looking elevator were repaired by forcing tough-bonding Gunite into them at a high pressure.

Then the whole structure was thoroughly waterproofed with an extra thick coating of Surfacite.

For a better than new job, write

JOHN D. BOLTON
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Stop Holding Conventions?

The thought has occurred to many that holding conventions in times like these is not helping the war effort. Others have remained at home in the belief that the government did not wish them to travel thereto.

Such is not the case, however, for it must be remembered that the management and operation of grain handling and grain processing plants is of first consideration in today's program.



Soldiers and sailors can't eat bullets—they've got to have the products of your various plants. And the better the job done in running each plant, then the better the co-operating with the fighting men, and consequently the sooner the conflict will cease.

There are many points in connection with management and operation, particularly in these times, which demand first-hand information and discussion. We must keep our plants running as efficiently, as economically, and as safely as possible under present stress and handicap as we individually can learn how—and the approaching SOGES convention in Chicago, June 15-16-17, is the only place to be brought up-to-date. Previous conventions attest the correctness of that statement. The reputation of being the hardest-working convention within the industry speaks for itself.

To attempt any other approach to the situation, to try to get along with-

out such conferences and round tables as the Superintendents' Society holds, is perhaps possible—but it is not wise—for interchange of knowledge helps all. Furthermore, such gatherings actually act to conserve travel, for if each attendant were to go to the sources of even a fraction of all information made available at such meetings, the burden upon the carriers would be prohibitive. Consequently the conclusion is obvious that your attending your industry's convention can save manpower, electricity, replacements and repairs, profits, deterioration, and so on, and perhaps is a step towards contributing the most you can in the war effort. Think it over, then make arrangements to attend today!—R. B. Pow, Reliance Grain Co., Ltd., Fort William, SOGES President.

To Blow Out Candles

Chester J. Alger, Corn Products Refining Co., Argo, is our first May birthday celebrant. Chet will take a deep breath and blow out the candles on his birthday cake on May 5th.

Gilbert P. Lane, Arcady Farms Milling Co., Chicago, will follow suit just five days later, only he tells us he isn't going to have angelfood like Alger is. Gil's favorite is a five-layer fudge cake with all the trimmings.

Paul Blodget of Wiedlocher & Sons, Springfield, Ill., says in view of the fact that his birthday comes on a work day, too, that he's going to settle for a simple thing like a seasoned fruit cake with all the rationed and vanished ingredients present. Paul claims there ought to be a good foundation for those candles, such as his choice, come May 11th.

Caryl Dempsey of Liquid Carbonic Corp., Chicago, says, "Doesn't anybody else have birthdays outside of those in the Chicago area? . . . And now as to my birthday cake, I'm going to be out of town on May 15th so I won't blow out any candles on cakes, but if I do I'll let you know."

Herman Peterson, Republic Elevator, Van Dusen-Harrington Co., Minneapolis, was heard to say in a wee small voice, "Sure, birthdays are no distinctive adjunct enjoyed exclusively by you 'windy city' breeze stoppers, nor is May 15th exclusive as a birthday with anybody in SOGES, 'cause it's mine, too." Herman would not tell us his specialty in birthday cakes, but we could tell from the twinkle in his eye that he was going to enjoy it.

Mouts Dies

Albert W. Mouts, 80, retired elevator superintendent for Washburn Crosby at Louisville, passed away March 30th.

Boadway to Board

Norman Boadway has been elected to the Board of Directors of the Collingwood Terminals, Ltd., Collingwood, Ont. He likewise was made Managing Director at the last board meeting. Norman was one of the very active hosts when the SOGES convention was held in Toronto.

Found It Interesting

Just received my copy of the March issue of "GRAIN," and as usual found it very interesting.

Also received notice of my appointment to the augmented Safety Committee, and assure the others I will do all I can to be at the convention, as well as to put in some hard work on the new proposed Safety Study Course distributed in initial form for suggestions.—Vincent Shea, Van Dusen-Harrington Co., Minneapolis.

Fill Exchange Form Now

"It takes time to obtain approval of your application for American funds with which to attend the Chicago SOGES convention June 15-16-17," Percy Poulton warns prospective attendants from Canada. "So fill out Form 'H' and file it with the Canadian Foreign Exchange Control Board at once."



"Certainly not everyone can know this far in advance whether or not it will be possible to attend this important business conference, but it is better to be prepared well in advance. Even though it now appears to be out of the question for you to go, file your application, for you can't tell what conditions will be by June," Mr. Poulton suggests. "You can't lose anything by filing, and the form takes but a moment to fill in, so get yours today and file it before sundown with the CFEBC."

Mr. Poulton again reminds Canadians that no passport visa is any longer necessary. A birth certificate suffices. He further recommends canvassing the transportation situation for both the going and returning journeys. "And plan to reach Chicago a day or so ahead of the convention, and to stay over a day or so afterwards to permit time to take a postman's holiday in several of the many directions of interest. Distances to the elevators and processing plants are great. They are located on every side of the 'loop'—and you won't want to miss investigating a lot of innovations you've read about and will hear about," Mr. Poulton urges.

A good way to relieve the monotony of any job is to think up ways of improving it.



Courtesy Continental Bulletin.

He insists he dropped his pay check by mistake.

COME A DAY EARLY, STAY A DAY LATER

"Come to the 15th Annual Superintendents' Society's convention a day early, and stay a day later," suggests Gordon E. Laugen, Manager, Archer-Daniels-Midland Co., Chicago Chapter president.

"Everyone has some kinfolks to visit, or something they have been waiting for years to see, and these important things should be done right. Then, when the business discussions start most of the visiting and sight seeing will be out of the way so that there will be no distractions pulling one's interests away from this highly important meeting," he states.

"By staying over until the Sunday night or Monday morning trains the delegates will have an opportunity of concluding participating in some of the many cultural events taking place, to say nothing of winding up on undone odds and ends." Mr. Laugen warns the business sessions will be packed full of meaty and valuable discussions that no one will want to miss. "So plan right now to arrive a day early and arrange your hotel and train reservations to stay over a day afterwards and really let Chicago do the convention job we want to do for you after nine years of not having you all here!"

All Want to Join in March?

From the appearance of the records one would gain the impression that all our new SOGES members wanted to join in the Feb. 15 to Mar. 15 period. At least a lot of them agreed the association with their "John Henry's" then. But that's the way it goes with associations—and next month I know we all can look for another big influx of new members we want to be sure to meet at the Chicago convention June 15-16-17.



Am mighty proud to be able to present two new members joining hands with us during the Mar. 15 to Apr. 15 period, namely, Lorrett S. Hover, Superintendent, Thomson Grain Elevator Co., Louisville, obtained by our good friend Bill Thomson (the boss); and Dewey H. Hagman, Superintendent of A-D-M Co.'s Great Northern Elevator in Minneapolis, obtained by Director Cliff MacIver of the same company.

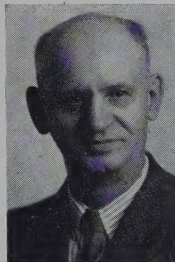
This adds to the record as indicated and let's Minneapolis crawl up another notch while Chicago isn't looking, but the important point is that here are two brand new members to be sure and meet at the convention you're going to attend very soon.—Harold Wilber.

NEW MEMBERSHIP GAIN HIGHEST

New members joining the Superintendents' Society have reached a record high mark for the first 8½ months of the association's contest, according to Harold Wilber, A. E. Staley Mfg. Co., Decatur, Ill., Vice President in charge of membership, "much of which gain has been added recently."

"True," Harold recalls, "in some previous years we've welcomed plenty of progressive new and reinstated members into our fold just prior to a convention, and we don't anticipate that this year will be any different. Some years have seen more than this 48 figure in the last three months, but in no year gone by, outside of the formative years of the Society, have so many expressed their desire to belong and followed their expressions up with applications and checks for dues."

"President Pow, Vice President Brand and I believe we will cross the 80 mark by convention time," he discloses. "And tell the Supers, wherever they are, that we welcome them to our convention, member or not, and cordially invite them to write me about joining."



Herbert Brand.

Wants Convention Data

This Chapter should be glad to learn a little more about the SOGES convention arrangements in Chicago, June 15-16-17th. Where will it be held, and if outside of the "loop", how far away? What are the program plans, the "postmen's" holiday inspection trip, and all the other vitally important points we should be anticipating in connection with this all-important "War-Time Conference" of ours?—Percy C. Poulton, N. M. Paterson & Co., Ltd., President, Fort William-Port Arthur Chapter SOGES.

They Came to Visit

Welcome visitors this month included Oscar Olsen, Peavy Duluth Terminal; Roy Heinrichson, Terminal Grain Corp., Sioux City; Oliver W. Randolph, O. W. Randolph Co., Toledo; Jim Auld, Belco Elevator, St. Louis Park; Norman Boardway, Collingwood (Ont.) Terminals, Ltd., and Edwin K. Dillman, Leval & Co., Minneapolis. . . . Roy is discussing the thought of applying hydraulic engineering to box car unloading . . . is simultaneously investigating many suction installations.

A.W.O.L.F.

A girl who went out with a soldier realized ten minutes later that he was A.W.O.L.F.

They're Coming from the East, Boys, They're Coming from the West

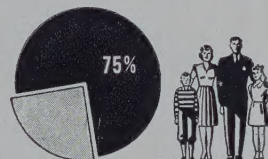
Just got the high sign from my company to get ready to take in the convention at Chicago, June 15-16-17. I am sure delighted with the idea and am looking forward to meeting the rest of the boys about whom I have heard so much from Jim Shaw during the past 15 years.

Reserve a room for me near my old buddy, Percy Poulton, whom I haven't seen since we were together in France in 1917. Also you might arrange with the Cubs or the White Sox to play a bang-up game for those days, too, because I sure want to see some big league ball again.—Ken S. Miller, Canadian, Pacific Elevator, West St. John, N. B.

Jack Smith to Vice Presidency

Jack Smith was just made Vice President of the Sarnia Elevator Company, Sarnia, Ont. He is a director of the Superintendents' Society and contributed much towards the outstanding success of the SOGES Toronto convention a few years ago.

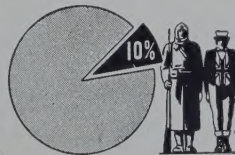
WHERE OUR FOOD GOES



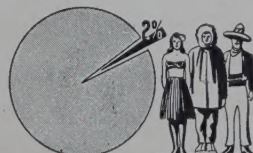
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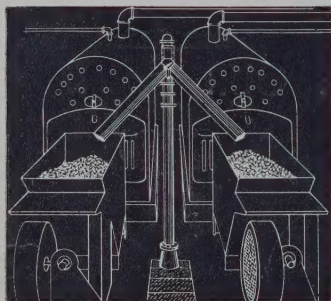
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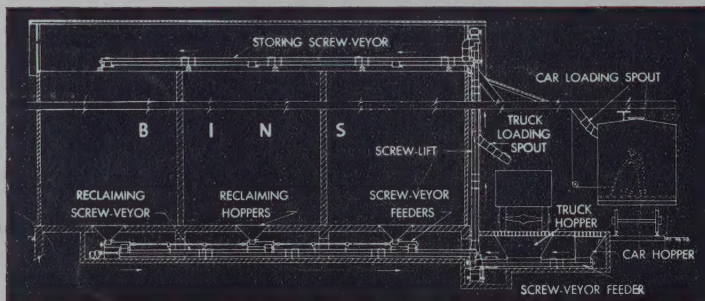
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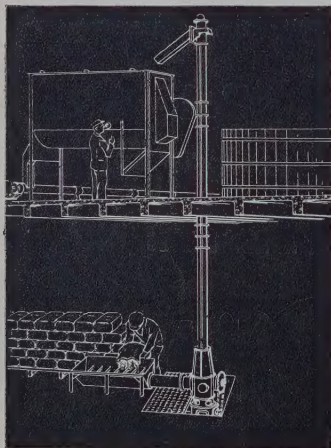
A FEW TYPICAL INSTALLATIONS



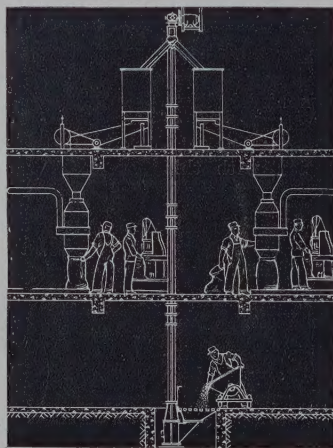
Feeding coal to stokers from storage. Any of our 5 types may be used.



A combination Screw-Veyor—Screw-Lift installation handling materials from cars to storage and reclaiming.



Type "C" Unit, Feeding dehydrated ingredients into dry soup mixer.



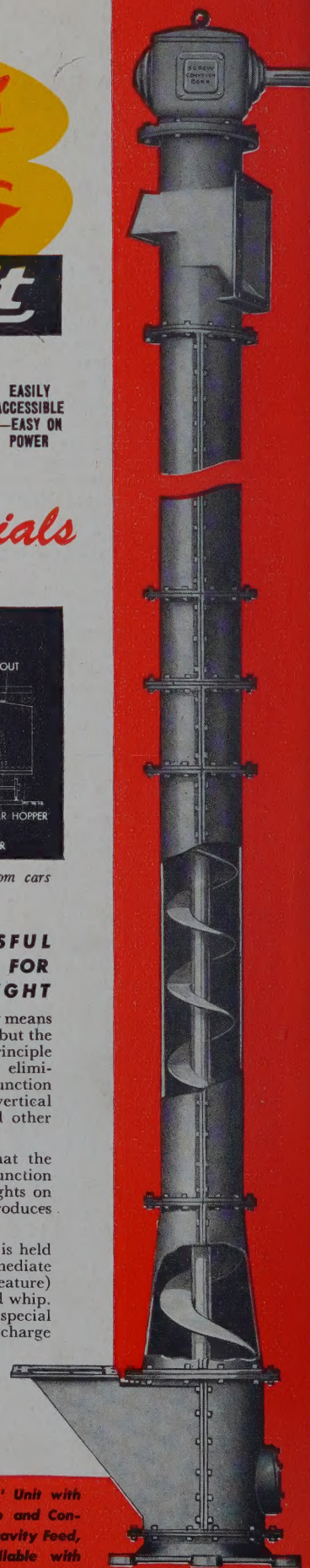
Type "A" Unit elevating material to grinders, automatic scales, etc.

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The theory of lifting material by means of a screw conveyor is not new, but the successful application of the principle is. Many obstacles had to be eliminated, such as pressure at the junction—choking, deflection in the vertical length of conveyor, noise, and other objectionable conditions.

The Screw-Lift is so made that the material enters an enlarged junction area and the design of the flights on the vertical lift at this point produces smooth and efficient loading.

Then each length of conveyor is held in place by means of an intermediate stabilizer bearing (a patented feature) which eliminates deflection and whip. Discharge is smooth because of special treatment of the flight at discharge point. Take-off may be in any position to suit conditions. The complete unit forms a continuous smooth-running system that is practically maintenance free.



**STANDARD UNITS AVAILABLE FOR CAPACITIES OF
75, 300, 1000 or 2500 cu. feet per hour—top or bottom drive**

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